

APPENDIX 1

Appendix I – '851 Patent

Claim 1	Admitted Prior Art
A pulse width modulated switch comprising:	
a first terminal;	<p>As shown in Figure 1, the admitted prior art includes a "first terminal" labeled "DRAIN" (95).</p> <ul style="list-style-type: none"> • "The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '851 Patent, 2:44-48. • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a "first terminal" labeled "Drain".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "Pin 15, 16(20): Open DRAIN of the output MOSFET. Both pins must be externally connected." Exh. I, SMP211 datasheet, FCS1685480.
a second terminal;	<p>As shown in Figure 1, the admitted prior art includes a "second terminal" labeled "COM" (100).</p> <ul style="list-style-type: none"> • "The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '851 Patent, 2:44-48. • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "Pin 5, 12, 13(14, 15, 16, 18): COM connections. Ground or reference point for the circuit." Exh. I, SMP211 datasheet, FCS1685480.
a switch comprising a control input, said switch allowing a signal to be transmitted between said first terminal and said second terminal according to a drive signal provided at said control input;	<p>As described in the '851 Patent, the admitted prior art includes a "switch" (90) with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • "In order to maintain the secondary DC voltage within a regulate range a feedback loop including an optocoupler 70, zener diode 75 and feedback resistor 80 provides a signal indicative of the voltage at the power supply output 65 to feedback pin 85 of pulse width modulated switch 90. The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '851 Patent, 2:40-48. • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive

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	<p><i>circuit 90</i> and a frequency variation circuit 140 <i>as recited in claim 29 [which issued as claim 1].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added).</p> <p>The SMP211 has is a "switch" with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch...." Exh. I, SMP211 datasheet, FCS1685478.
a frequency variation circuit that provides a frequency variation signal;	<p>As shown in Figure 1 and described in the '851 Patent, the admitted prior art includes a "frequency variation circuit" (140) that provides a frequency variation signal (135).</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency oscillation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25." '851 Patent, 3:10-14. • "<i>Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added).
an oscillator that provides an oscillation signal having a frequency range, said frequency of said oscillation signal varying within said frequency range according to said frequency variation signal, said oscillator further providing a maximum duty cycle signal comprising a first state and a second state; and	<p>As described in the '851 Patent and embodied in the SMP211, the admitted prior art includes an oscillator that provides an oscillation signal having a frequency range.</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency variation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25. The jitter current 135 is used to vary the frequency of <i>the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90.</i>" '851 Patent, 3:10-17 (emphasis added). • See SMP211 datasheet, Figure 3 (showing oscillator providing a "SAW" oscillation signal having a frequency range). Exh. I, SMP211 datasheet, FCS1685479. • "The oscillator linearly charges and discharges the combined internal and external capacitance between two different voltage levels to create a sawtooth waveform for the pulse width modulator." Exh. I, SMP211 datasheet, FCS1685480. <p>As described in the '851 Patent, in the admitted prior art the frequency of the oscillation signal varies according to the frequency variation signal (jitter current 135).</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency variation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25. <i>The jitter current 135 is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90.</i>" '851 Patent, 3:10-17 (emphasis added). <p>The SMP211 prior art shown in Figure 1 includes an oscillator that provides a maximum duty cycle signal</p>

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Claim 1	Admitted Prior Art
<p>a drive circuit that provides said drive signal when said maximum duty cycle signal is in said first state and a magnitude of said oscillation signal is below a threshold level.</p>	<p>comprising a first state and a second state.</p> <ul style="list-style-type: none"> • See Figure 3 (showing oscillator providing a "D_{MAX}" maximum duty cycle signal) Exh. I, SMP211 datasheet, FCS1685479. • "The DMAX signal from the oscillator limits the maximum duty cycle by gating the output driver." Exh. I, SMP211 datasheet, FCS1685481. <p>As noted during the prosecution of the '851 Patent, the admitted prior art includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 <i>as recited in claim 29 [which issued as claim 1].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The prior art SMP211 includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "GATE DRIVER") Exh. I, SMP211 datasheet, FCS1685479.
Claim 2	Admitted Prior Art
<p>The pulse width modulated switch of claim 1 wherein said first terminal, said second terminal, said switch, said oscillator, said frequency variation circuit and said drive circuit comprise a monolithic device.</p>	<p>As the Examiner noted during prosecution of the '851 Patent, it would have been obvious for the first terminal, the second terminal, the switch, the oscillator, the frequency variation circuit and the drive circuit to comprise a monolithic device.</p> <ul style="list-style-type: none"> • "Applicants' Prior Art Fig. 1 does not specify that the circuit is an integrated circuit as recited in claim 34 [which issued as claim 16]. <i>However, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Prior Art Fig. 1 as an integrated circuit for the benefit of implementing a compact single package. Claim 34 [which issued as claim 16] is obvious.</i>" Exh. C, '851 Pros. History, FCS0000440 (emphasis added). <p>The SMP211 was a monolithic device.</p> <ul style="list-style-type: none"> • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a monolithic integrated circuit." Exh. I, SMP211 datasheet, FCS1685478.

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Claim 7	Admitted Prior Art
The pulse width modulated switch of claim 1 wherein said frequency of said oscillation signal varies within said frequency range with a magnitude of said frequency variation signal.	<p>As shown in Figure 1 and described in the '851 Patent, the admitted prior art includes a "frequency variation circuit" (140) that provides a frequency variation signal (135), wherein the frequency of the oscillation signal varies within the frequency range with a magnitude of the frequency variation signal.</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency oscillation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25. The jitter current 135 is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90." '851 Patent, 3:10-14.
Claim 9	Admitted Prior Art
The pulse width modulated switch of claim 1 further comprising:	
a rectifier comprising a rectifier input and a rectifier output, said rectifier input receiving an AC mains signal and said rectifier output providing a rectified signal;	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a rectifier (10) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal (5) ("AC IN") and the rectifier output providing a rectified signal (15).</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted. A rectifier 10 rectifies the filtered AC mains voltage 5, form EMI filter 120, input by the AC mains to generate a rectified voltage 25." '851 Patent, 2:27-31. • "Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and the rectifier output providing a rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1." Exh. I, SMP211 datasheet, FCS1685481.
a power supply capacitor that receives said rectified signal and provides a substantially DC signal;	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a power supply capacitor 20 that receives the rectified signal (15) and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... Power supply capacitor 20 then generates a substantially DC voltage with a ripple

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Claim 9	Admitted Prior Art
	<p>component.” ‘851 Patent, 2:27-32.</p> <ul style="list-style-type: none"> • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and a second winding 45 as recited in claim 35 [which issued as claim 17].” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a power supply capacitor (C1) that receives the rectified signal and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1.” Exh. I, SMP211 datasheet, FCS1685481.
<p>a first winding comprising a first terminal and a second terminal, said first winding receiving said substantially DC signal, said second terminal of said first winding coupled to said first terminal of said switch; and</p>	<p>As shown in Figure 1 and described in the ‘851 patent, the admitted prior art includes a first winding (35) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of the first winding coupled to the first terminal (DRAIN) of the switch (90).</p> <ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and a second winding 45 as recited in claim 35 [which issued as claim 17].” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a first winding (32T) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of said first winding coupled to the first terminal (DRAIN) of the switch.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1. The other side of the transformer is driven by the integrated high voltage MOSFET transistor within the SMP211.” Exh. I, SMP211 datasheet, FCS1685481.
<p>a second winding magnetically coupled to said first winding.</p>	<p>As shown in Figure 1 and described in the ‘851 patent, the admitted prior art includes a second winding (45) magnetically coupled to the first winding (35).</p> <ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and a second

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Claim 9	Admitted Prior Art
	<p><i>winding 45 as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added).</p> <p>The SMP211 datasheet teaches using the SMP211 with a second winding (3T) magnetically coupled to the first winding (32T).</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] The power secondary winding is rectified and filtered by D2, C2, and C10 to create the desired output voltage." Exh. I, SMP211 datasheet, FCS1685481.
Claim 10	Admitted Prior Art
<p>The pulse width modulated switch of claim 1 wherein said variable threshold level is a function of a feedback signal received at a feedback terminal of said pulse width modulated switch.</p>	<p>As shown in Figure 1 and described in the '851 Patent, the admitted prior art includes a "feedback terminal" labeled "FEEDBACK" (85). The variable threshold level is a function of a feedback signal received at a feedback terminal "FEEDBACK" (85) of the pulse width modulated switch.</p> <ul style="list-style-type: none"> • "In order to maintain the secondary DC voltage within a regulate range a feedback loop including an optocoupler 70, zener diode 75 and feedback resistor 80 provides a signal indicative of the voltage at the power supply output 65 to feedback pin 85 of pulse width modulated switch 90. The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '851 Patent, 2:40-48. • "Further shown [in Prior Art Figure 1] is a feedback terminal (Error Amplifier in) as recited in claim 37." Exh. C, '851 Pros. History, FCS0000439. <p>The SMP211 has a "feedback terminal" labeled "FEEDBACK".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "Pin 10(12): FEEDBACK is the error amplifier output for connection to the external compensation network." Exh. I, SMP211 datasheet, FCS1685480.
Claim 11	Admitted Prior Art
<p>A regulation circuit comprising: a first terminal;</p>	<p>As shown in Figure 1, the admitted prior art includes a "first terminal" labeled "DRAIN" (95).</p> <ul style="list-style-type: none"> • "The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch

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Claim 11	Admitted Prior Art
	<p>coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90.” ‘851 Patent, 2:44-48.</p> <ul style="list-style-type: none"> • “<i>Applicants’ Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a “first terminal” labeled “Drain”.</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • “Pin 15, 16(20): Open DRAIN of the output MOSFET. Both pins must be externally connected.” Exh. I, SMP211 datasheet, FCS1685480.
a second terminal;	<p>As shown in Figure 1, the admitted prior art includes a “second terminal” labeled “COM” (100).</p> <ul style="list-style-type: none"> • “The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90.” ‘851 Patent, 2:44-48. • “<i>Applicants’ Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a “second terminal” labeled “COM”.</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • “Pin 5, 12, 13(14, 15, 16, 18): COM connections. Ground or reference point for the circuit.” Exh. I, SMP211 datasheet, FCS1685480.
a feedback terminal coupled to disable the regulation circuit;	<p>As shown in Figure 1 and described in the ‘851 Patent, the admitted prior art includes a “feedback terminal” labeled “FEEDBACK” (85).</p> <ul style="list-style-type: none"> • “In order to maintain the secondary DC voltage within a regulate range a feedback loop including an optocoupler 70, zener diode 75 and feedback resistor 80 provides a signal indicative of the voltage at the power supply output 65 to feedback pin 85 of pulse width modulated switch 90. The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90.” ‘851 Patent, 2:40-48. • “Further shown [in Prior Art Figure 1] is a feedback terminal (Error Amplifier in) as recited in claim 37.” Exh. C, ‘851 Pros. History, FCS0000439. <p>The SMP211 has a “feedback terminal” labeled “FEEDBACK”.</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • “Pin 10(12): FEEDBACK is the error amplifier output for connection to the external compensation network.” Exh. I, SMP211 datasheet, FCS1685480.

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Claim 11	Admitted Prior Art
a switch comprising a control input, said switch allowing a signal to be transmitted between said first terminal and said second terminal according to a drive signal provided at said control input;	<p>As described in the '851 Patent, the admitted prior art includes a "switch" (90) with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • "In order to maintain the secondary DC voltage within a regulate range a feedback loop including an optocoupler 70, zener diode 75 and feedback resistor 80 provides a signal indicative of the voltage at the power supply output 65 to feedback pin 85 of pulse width modulated switch 90. The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '851 Patent, 2:40-48. • <i>"Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]."</i> Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has is a "switch" with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch...." Exh. I, SMP211 datasheet, FCS1685478.
a frequency variation circuit that provides a frequency variation signal;	<p>As shown in Figure 1 and described in the '851 Patent, the admitted prior art includes a "frequency variation circuit" (140) that provides a frequency variation signal (135).</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency oscillation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25." '851 Patent, 3:10-14. • <i>"Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]."</i> Exh. C, '851 Pros. History, FCS0000439 (emphasis added).
an oscillator that provides an oscillation signal having a frequency range, said frequency of said oscillation signal varying within said frequency range according to said frequency variation signal, said oscillator further providing a maximum duty cycle signal comprising a first state and a second state; and	<p>As described in the '851 Patent and embodied in the SMP211, the admitted prior art includes an oscillator that provides an oscillation signal having a frequency range.</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency variation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25. The jitter current 135 is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90." '851 Patent, 3:10-17 (emphasis added). • See SMP211 datasheet, Figure 3 (showing oscillator providing a "SAW" oscillation signal having a frequency range). Exh. I, SMP211 datasheet, FCS1685479. • "The oscillator linearly charges and discharges the combined internal and external capacitance

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Claim 11	Admitted Prior Art
	<p>between two different voltage levels to create a sawtooth waveform for the pulse width modulator.” Exh. I, SMP211 datasheet, FCS1685480.</p> <p>As described in the '851 Patent, in the admitted prior art the frequency of the oscillation signal varies according to the frequency variation signal (jitter current 135).</p> <ul style="list-style-type: none"> “Additionally, pulse width modulated switch 90 is equipped with frequency variation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25. <i>The jitter current 135 is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90.</i>” ‘851 Patent, 3:10-17 (emphasis added). <p>The SMP211 prior art shown in Figure 1 includes an oscillator that provides a maximum duty cycle signal comprising a first state and a second state.</p> <ul style="list-style-type: none"> See Figure 3 (showing oscillator providing a “D_{MAX}” maximum duty cycle signal). Exh. I, SMP211 datasheet, FCS1685479. “The DMAX signal from the oscillator limits the maximum duty cycle by gating the output driver.” Exh. I, SMP211 datasheet, FCS1685481.
<p>a drive circuit that provides said drive signal when said maximum duty cycle signal is in said first state and said regulation circuit is not disabled.</p>	<p>As noted during the prosecution of the '851 Patent, the admitted prior art includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> “Applicants’ Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 <i>as recited in claim 29 [which issued as claim 1].</i>” Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The prior art SMP211 includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> See Figure 3 (showing drive circuit “GATE DRIVER”) Exh. I, SMP211 datasheet, FCS1685479.
Claim 16	Admitted Prior Art
<p>The regulation circuit of claim 11 wherein said first terminal, said second terminal, said switch, said frequency variation circuit and said drive circuit comprise a monolithic device.</p>	<p>As the Examiner noted during prosecution of the '851 Patent, it would have been obvious for the first terminal, the second terminal, the switch, the oscillator, the frequency variation circuit and the drive circuit to comprise a monolithic device.</p> <ul style="list-style-type: none"> “Applicants’ Prior Art Fig. 1 does not specify that the circuit is an integrated circuit as recited in claim 34 [which issued as claim 16]. <i>However, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Prior Art Fig. 1 as an integrated circuit for the benefit of implementing a compact single package. Claim 34 [which issued as claim 16] is</i>

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Claim 16	Admitted Prior Art
	<p><i>obvious.</i>" Exh. C, '851 Pros. History, FCS0000440 (emphasis added). The SMP211 was a monolithic device.</p> <ul style="list-style-type: none"> • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a monolithic integrated circuit." Exh. I, SMP211 datasheet, FCS1685478.
Claim 17	Admitted Prior Art
<p>The regulation circuit of claim 11 further comprising:</p> <p>a rectifier comprising a rectifier input and a rectifier output, said rectifier input receiving an AC mains signal and said rectifier output providing a rectified signal;</p>	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a rectifier (10) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal (5) ("AC IN") and the rectifier output providing a rectified signal (15).</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted. A rectifier 10 rectifies the filtered AC mains voltage 5, form EMI filter 120, input by the AC mains to generate a rectified voltage 25." '851 Patent, 2:27-31. • "Further shown [in Prior Art Fig. 1] is <i>a rectifier 10</i>, a capacitor 15, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and the rectifier output providing a rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1." Exh. I, SMP211 datasheet, FCS1685481.
<p>a power supply capacitor that receives said rectified signal and provides a substantially DC signal;</p>	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a power supply capacitor 20 that receives the rectified signal (15) and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... Power supply capacitor 20 then generates a substantially DC voltage with a ripple component." '851 Patent, 2:27-32. • "Further shown [in Prior Art Fig. 1] is a rectifier 10, <i>a capacitor 15</i>, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History,

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Claim 17	Admitted Prior Art
	<p>FCS0000439 (emphasis added).</p> <p>The SMP211 datasheet teaches using the SMP211 with a power supply capacitor (C1) that receives the rectified signal and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1.” Exh. I, SMP211 datasheet, FCS1685481.
<p>a first winding comprising a first terminal and a second terminal, said first winding receiving said substantially DC signal, said second terminal of said first winding coupled to said first terminal of said switch; and</p>	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a first winding (35) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of the first winding coupled to the first terminal (DRAIN) of the switch (90).</p> <ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a <i>first winding 35</i> and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a first winding (32T) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of said first winding coupled to the first terminal (DRAIN) of the switch.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1. The other side of the transformer is driven by the integrated high voltage MOSFET transistor within the SMP211.” Exh. I, SMP211 datasheet, FCS1685481.
<p>a second winding magnetically coupled to said first winding.</p>	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a second winding (45) magnetically coupled to the first winding (35).</p> <ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and a <i>second winding 45 as recited in claim 35 [which issued as claim 17].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a second winding (3T) magnetically coupled to the</p>

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Claim 17	Admitted Prior Art
	<p>first winding (321).</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] The power secondary winding is rectified and filtered by D2, C2, and C10 to create the desired output voltage.” Exh. I, SMP211 datasheet, FCS1685481.

APPENDIX 2

Appendix II – '366 Patent

Claim 1	Admitted Prior Art
A pulse width modulated switch comprising:	
a first terminal;	<p>As shown in Figure 1, the admitted prior art includes a "first terminal" labeled "DRAIN" (95).</p> <ul style="list-style-type: none"> • "The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '366 Patent, 2:53-57. • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a "first terminal" labeled "Drain".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "Pin 15, 16(20): Open DRAIN of the output MOSFET. Both pins must be externally connected." Exh. I, SMP211 datasheet, FCS1685480.
a second terminal;	<p>As shown in Figure 1, the admitted prior art includes a "second terminal" labeled "COM" (100).</p> <ul style="list-style-type: none"> • "The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '366 Patent, 2:53-57. • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "Pin 5, 12, 13(14, 15, 16, 18): COM connections. Ground or reference point for the circuit." Exh. I, SMP211 datasheet, FCS1685480.
a switch comprising a control input, the switch allowing a signal to be transmitted between said first terminal and said second terminal according to a drive signal provided at said control input;	<p>As described in the '366 Patent, the admitted prior art includes a "switch" (90) with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • "In order to maintain the secondary DC voltage within a regulate range a feedback loop including an optocoupler 70, zener diode 75 and feedback resistor 80 provides a signal indicative of the voltage at the power supply output 65 to feedback pin 85 of pulse width modulated switch 90. The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '366 Patent, 2:49-57. • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive

Appendix II – '366 Patent

Claim 1	Admitted Prior Art
	<p><i>circuit 90</i> and a frequency variation circuit 140 <i>as recited in claim 29 [which issued as claim 1].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added).</p> <p>The SMP211 has is a "switch" with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch...." Exh. I, SMP211 datasheet, FCS1685478.
an oscillator that provides a maximum duty cycle signal comprising an on-state and an off-state;	<p>The SMP211 prior art shown in Figure 1 includes an oscillator that provides a maximum duty cycle signal comprising an on-state and an off-state.</p> <ul style="list-style-type: none"> • See Figure 3 (showing oscillator providing a "D_{MAX}" maximum duty cycle signal) Exh. I, SMP211 datasheet, FCS1685479. • "The DMAX signal from the oscillator limits the maximum duty cycle by gating the output driver." Exh. I, SMP211 datasheet, FCS1685481.
a drive circuit that provides said drive signal according to said maximum duty cycle signal; and.	<p>As noted during the prosecution of the '851 Patent, the admitted prior art includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • "Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 <i>as recited in claim 29 [which issued as claim 1].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The prior art SMP211 includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "GATE DRIVER") Exh. I, SMP211 datasheet, FCS1685479.
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum duty cycle.	<p>As stated in the specification of the '366 Patent, the admitted prior art shown in Figure 1 includes a soft start circuit that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum duty cycle.</p> <ul style="list-style-type: none"> • "Inrush currents are minimized at start up by use of soft start capacitor 110. Soft start functionality is termed to be a functionality that reduces inrush currents at start up. At this instant a current begins to flow through feedback resistor 80 and thereby into soft start capacitor 110. As the voltage of soft start capacitor 110 increases slowly, current will flow through light emitting diode 115 of optocoupler 70 thereby controlling the duty cycle of the switch. Once the voltage of soft start capacitor 110 reaches the reverse breakdown voltage of zener diode 75 current will slow through zener diode 75." '366 Patent, 2:65-3:8. • Indeed, Power Integrations described Figure 1 of the '366 Patent as "a known power supply utilizing a pulse width modulated switch, and external soft start...." '366 Patent, 4:47-48 (emphasis added).

Appendix II – '366 Patent

Claim 2	Admitted Prior Art
<p>The pulse width modulated switch of claim 1 wherein said a first terminal, said second terminal, said switch, said oscillator, said drive circuit and said soft start circuit comprise a monolithic device.</p>	<p>As the Examiner noted during prosecution of the '851 Patent, it would have been obvious for the first terminal, the second terminal, the switch, the oscillator, the frequency variation circuit and the drive circuit to comprise a monolithic device.</p> <ul style="list-style-type: none"> • "Applicants' Prior Art Fig. 1 does not specify that the circuit is an integrated circuit as recited in claim 34 [which issued as claim 16]. <i>However, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Prior Art Fig. 1 as an integrated circuit for the benefit of implementing a compact single package. Claim 34 [which issued as claim 16] is obvious.</i>" Exh. C, '851 Pros. History, FCS0000440 (emphasis added). <p>The SMP211 was a monolithic device.</p> <ul style="list-style-type: none"> • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a monolithic integrated circuit." Exh. I, SMP211 datasheet, FCS1685478.

Claim 8	Admitted Prior Art
<p>The pulse width modulated switch of claim 1 further comprising:</p> <p>a rectifier comprising a rectifier input and a rectifier output, said rectifier input receiving an AC mains signal and said rectifier output providing a rectified signal;</p>	<p>As shown in Figure 1 and described in the '366 patent, the admitted prior art includes a rectifier (10) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal (5) ("AC IN") and the rectifier output providing a rectified signal (15).</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted. A rectifier 10 rectifies the filtered AC mains voltage 5, form EMI filter 120, input by the AC mains to generate a rectified voltage 25." '366 Patent, 2:35-40. • "Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and the rectifier output providing a rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input. ... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1." Exh. I, SMP211 datasheet,

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Claim 8	Admitted Prior Art
<p>a power supply capacitor that receives said rectified signal;</p>	<p>FCS1685481.</p> <p>As shown in Figure 1 and described in the '366 patent, the admitted prior art includes a power supply capacitor 20 that receives the rectified signal (15) and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... Power supply capacitor 20 then generates a substantially DC voltage with a ripple component." '366 Patent, 2:35-41. • "Further shown [in Prior Art Fig. 1] is a rectifier 10, <i>a capacitor 15</i>, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17]</i>." Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a power supply capacitor (C1) that receives the rectified signal and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1." Exh. I, SMP211 datasheet, FCS1685481.
<p>a first winding comprising a first terminal and a second terminal, said first winding receiving a substantially DC signal from said power supply capacitor, said second terminal of said first winding coupled to said first terminal of said pulse width modulated switch; and</p>	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a first winding (35) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of the first winding coupled to the first terminal (DRAIN) of the switch (90).</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45." '851 Patent, 2:27-35. • "Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, <i>a first winding 35</i> and a second winding 45 <i>as recited in claim 35 [which issued as claim 17]</i>." Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a first winding (32T) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of said first winding coupled to the first terminal (DRAIN) of the switch.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1. The other side of the transformer is driven by the integrated high voltage MOSFET transistor within the SMP211." Exh. I, SMP211 datasheet, FCS1685481.
<p>a second winding</p>	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a second winding (45)</p>

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Claim 8	Admitted Prior Art
magnetically coupled to said first winding, said first winding capable of being coupled to a load.	<p>magnetically coupled to the first winding (35).</p> <ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and <i>a second winding 45 as recited in claim 35 [which issued as claim 17].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a second winding (3T) magnetically coupled to the first winding (32T).</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] The power secondary winding is rectified and filtered by D2, C2, and C10 to create the desired output voltage.” Exh. I, SMP211 datasheet, FCS1685481.

Claim 9	Admitted Prior Art
A regulation circuit comprising:	
a first terminal;	<p>As shown in Figure 1, the admitted prior art includes a “first terminal” labeled “DRAIN” (95).</p> <ul style="list-style-type: none"> • “The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90.” ‘366 Patent, 2:53-57. • “<i>Applicants’ Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 has a “first terminal” labeled “Drain”.</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479. • “Pin 15, 16(20): Open DRAIN of the output MOSFET. Both pins must be externally connected.” Exh. I, SMP211 datasheet, FCS1685480.
a second terminal;	<p>As shown in Figure 1, the admitted prior art includes a “second terminal” labeled “COM” (100).</p> <ul style="list-style-type: none"> • “The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90.” ‘366 Patent, 2:53-57.

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Claim 9	Admitted Prior Art
	<ul style="list-style-type: none"> • <i>"Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added).</i> <p>The SMP211 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • <i>See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479.</i> • <i>"Pin 5, 12, 13(14, 15, 16, 18): COM connections. Ground or reference point for the circuit." Exh. I, SMP211 datasheet, FCS1685480.</i>
a switch comprising a control input, said switch allowing a signal to be transmitted between said first terminal and said second terminal according to a drive signal provided at said control input;	<p>As described in the '366 Patent, the admitted prior art includes a "switch" (90) with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • <i>"In order to maintain the secondary DC voltage within a regulate range a feedback loop including an optocoupler 70, zener diode 75 and feedback resistor 80 provides a signal indicative of the voltage at the power supply output 65 to feedback pin 85 of pulse width modulated switch 90. The voltage magnitude at the feedback terminal is utilized to vary the duty cycle of a switch coupled between the drain terminal 95 and common terminal 100 of the pulse width modulated switch 90." '366 Patent, 2:49-57.</i> • <i>"Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added).</i> <p>The SMP211 has is a "switch" with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • <i>See Figures 1, 2, and 3. Exh. I, SMP211 datasheet, FCS1685478-479.</i> • <i>"The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch..." Exh. I, SMP211 datasheet, FCS1685478.</i>
a drive circuit that provides said drive signal for a maximum time period of a cycle; and	<p>As noted during the prosecution of the '851 Patent, the admitted prior art includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • <i>"Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1]." Exh. C, '851 Pros. History, FCS0000439 (emphasis added).</i> <p>The prior art SMP211 includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • <i>See Figure 3 (showing drive circuit "GATE DRIVER") Exh. I, SMP211 datasheet, FCS1685479.</i>

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Claim 9	Admitted Prior Art
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum time period.	<p>As stated in the specification of the '366 Patent, the admitted prior art shown in Figure 1 includes a soft start circuit that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum time period.</p> <ul style="list-style-type: none"> • "Inrush currents are minimized at start up by use of soft start capacitor 110. Soft start functionality is termed to be a functionality that reduces inrush currents at start up. At this instant a current begins to flow through feedback resistor 80 and thereby into soft start capacitor 110. As the voltage of soft start capacitor 110 increases slowly, current will flow through light emitting diode 115 of optocoupler 70 thereby controlling the duty cycle of the switch. Once the voltage of soft start capacitor 110 reaches the reverse breakdown voltage of zener diode 75 current will slow through zener diode 75." '366 Patent, 2:65-3:8. • Indeed, Power Integrations described Figure 1 of the '366 Patent as "a known power supply utilizing a pulse width modulated switch, <i>and external soft start</i>...." '366 Patent, 4:47-48 (emphasis added).
Claim 10	Admitted Prior Art
The regulation circuit of claim 9 further comprising an oscillator that provides a maximum duty cycle signal to said drive circuit, said maximum duty cycle signal comprising an on-state for said maximum time period.	<p>The SMP211 prior art shown in Figure 1 includes an oscillator that provides an oscillator that provides a maximum duty cycle signal to the drive circuit, the maximum duty cycle signal comprising an on-state for the maximum time period.</p> <ul style="list-style-type: none"> • See Figure 3 (showing oscillator providing a "D_{MAX}" maximum duty cycle signal) Exh. I, SMP211 datasheet, FCS1685479. • "The DMAX signal from the oscillator limits the maximum duty cycle by gating the output driver." Exh. I, SMP211 datasheet, FCS1685481.
Claim 14	Admitted Prior Art
The regulation circuit of claim 9 further comprising a frequency variation circuit that provides a frequency variation signal and wherein said maximum time period varies according to a magnitude of said frequency variation signal.	<p>As shown in Figure 1 and described in the '366 Patent, the admitted prior art includes a "frequency variation circuit" (140) that provides a frequency variation signal (135).</p> <ul style="list-style-type: none"> • "Additionally, pulse width modulated switch 90 is equipped with frequency oscillation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25." '366 Patent, 3:19-23. • "<i>Applicants' Prior Art Fig. 1 shows a first terminal 95, a second terminal Com, a switch/drive circuit 90 and a frequency variation circuit 140 as recited in claim 29 [which issued as claim 1].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>As described in the '366 Patent and shown in SMP211 prior art datasheet, the SMP211 shown in Figure 1</p>

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Claim 14	Admitted Prior Art
	<p>includes an oscillator that provides a maximum time period that varies according to a magnitude of the frequency variation signal.</p> <ul style="list-style-type: none"> • See Figure 3 (showing oscillator providing a "D_{MAX}" maximum duty cycle signal). Exh. I, SMP211 datasheet, FCS1685479. • "The DMAX signal from the oscillator limits the maximum duty cycle by gating the output driver." Exh. I, SMP211 datasheet, FCS1685481. • "Additionally, pulse width modulated switch 90 is equipped with frequency variation terminals 125 and 130. Frequency oscillation terminal 125 and 130 receive a jitter current 135 that varies according to the ripple component of substantially DC voltage 25. The jitter current 135 is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90." '366 Patent, 3:19-26. • "The oscillator linearly charges and discharges the combined internal and external capacitance between two different voltage levels to create a sawtooth waveform for the pulse width modulator." Exh. I, SMP211 datasheet, FCS1685480.
Claim 16	Admitted Prior Art
<p>The regulation circuit of claim 9 wherein said first terminal, said second terminal, said oscillator and said soft start circuit comprise a monolithic device.</p>	<p>As the Examiner noted during prosecution of the '851 Patent, it would have been obvious for the first terminal, the second terminal, the switch, the oscillator, the frequency variation circuit and the drive circuit to comprise a monolithic device.</p> <ul style="list-style-type: none"> • "Applicants' Prior Art Fig. 1 does not specify that the circuit is an integrated circuit as recited in claim 34 [which issued as claim 16]. <i>However, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Prior Art Fig. 1 as an integrated circuit for the benefit of implementing a compact single package. Claim 34 [which issued as claim 16] is obvious.</i>" Exh. C, '851 Pros. History, FCS0000440 (emphasis added). <p>The SMP211 was a monolithic device.</p> <ul style="list-style-type: none"> • "The SMP211, intended for 220 V or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a monolithic integrated circuit." Exh. I, SMP211 datasheet, FCS1685478.
Claim 18	Admitted Prior Art
<p>The regulation circuit of claim 9 further comprising:</p>	

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Claim 18	Admitted Prior Art
a rectifier comprising a rectifier input and a rectifier output, said rectifier input receiving an AC mains signal and said rectifier output providing a rectified signal;	<p>As shown in Figure 1 and described in the '366 patent, the admitted prior art includes a rectifier (10) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal (5) ("AC IN") and the rectifier output providing a rectified signal (15).</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted. A rectifier 10 rectifies the filtered AC mains voltage 5, form EMI filter 120, input by the AC mains to generate a rectified voltage 25." '366 Patent, 2:35-40. • "Further shown [in Prior Art Fig. 1] is <i>a rectifier 10</i>, a capacitor 15, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and the rectifier output providing a rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1." Exh. I, SMP211 datasheet, FCS1685481.
a power supply capacitor that receives said rectified signal;	<p>As shown in Figure 1 and described in the '366 patent, the admitted prior art includes a power supply capacitor 20 that receives the rectified signal (15) and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • "Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... Power supply capacitor 20 then generates a substantially DC voltage with a ripple component." '366 Patent, 2:35-41. • "Further shown [in Prior Art Fig. 1] is a rectifier 10, <i>a capacitor 15</i>, a first winding 35 and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>" Exh. C, '851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a power supply capacitor (C1) that receives the rectified signal and provides a substantially DC signal.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • "The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1." Exh. I, SMP211 datasheet, FCS1685481.
a first winding comprising a first terminal and a second terminal, said first winding	<p>As shown in Figure 1 and described in the '851 patent, the admitted prior art includes a first winding (35) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of the first winding coupled to the first terminal (DRAIN) of the switch (90).</p>

Appendix II – '366 Patent

Claim 18	Admitted Prior Art
<p>receiving a substantially DC signal from said power supply capacitor, said second terminal of said first winding coupled to said first terminal of said regulation circuit; and</p>	<ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, <i>a first winding 35</i> and a second winding 45 <i>as recited in claim 35 [which issued as claim 17].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a first winding (32T) comprising a first terminal and a second terminal, the first winding receiving the substantially DC signal, the second terminal of said first winding coupled to the first terminal (DRAIN) of the switch.</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] AC power is rectified and filtered by BR1 and C1 to create the high voltage DC bus applied to the primary winding of T1. The other side of the transformer is driven by the integrated high voltage MOSFET transistor within the SMP211.” Exh. I, SMP211 datasheet, FCS1685481.
<p>a second winding magnetically coupled to said first winding, said first winding capable of being coupled to a load.</p>	<p>As shown in Figure 1 and described in the ‘851 patent, the admitted prior art includes a second winding (45) magnetically coupled to the first winding (35).</p> <ul style="list-style-type: none"> • “Referring to FIG. 1 a known power supply that attempts to minimize EMI and reduce startup stress is depicted.... The rectified voltage 25 with ripple component is provided to the primary winding 35 of transformer 40 that is used to provide power to secondary winding 45.” ‘851 Patent, 2:27-35. • “Further shown [in Prior Art Fig. 1] is a rectifier 10, a capacitor 15, a first winding 35 and <i>a second winding 45 as recited in claim 35 [which issued as claim 17].</i>” Exh. C, ‘851 Pros. History, FCS0000439 (emphasis added). <p>The SMP211 datasheet teaches using the SMP211 with a second winding (3T) magnetically coupled to the first winding (32T).</p> <ul style="list-style-type: none"> • See Figures 1, 6, and 7. Exh. I, SMP211 datasheet, FCS1685478-485. • “The flyback power supply circuit shown in Figure 6 is a 5 volt, 5 watt power supply that operates from 85 to 265 V(rms) AC input.... [¶] The power secondary winding is rectified and filtered by D2, C2, and C10 to create the desired output voltage.” Exh. I, SMP211 datasheet, FCS1685481.

APPENDIX 3

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Claim 1	Admitted Prior Art
A pulse width modulated switch comprising:	REDACTED
a first terminal;	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 has a "first terminal" labeled "Drain".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. J, SMP240 datasheet, FCS1685819-20. • "Pin 18, 19: Open DRAIN of the output MOSFET." Exh. J, SMP240 datasheet, FCS1685821. <p>The SMP260 datasheet confirms that the SMP260 has a "first terminal" labeled "Drain".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. K, SMP240 datasheet, FCS1685806-07. • "Pin 18, 19: Open DRAIN of the output MOSFET." Exh. K, SMP260 datasheet, FCS1685808.
a second terminal;	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. J, SMP240 datasheet, FCS1685819-20. • "Pin 1: COM is common reference point for all low-power and reference circuitry." Exh. J, SMP240 datasheet, FCS1685808. <p>The SMP260 datasheet confirms that the SMP260 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. K, SMP240 datasheet, FCS1685806-07. • "Pin 1: COM is common reference point for all low-power and reference circuitry." Exh. K, SMP260 datasheet, FCS1685821.

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Claim 1	Admitted Prior Art
<p>a switch comprising a control input, the switch allowing a signal to be transmitted between said first terminal and said second terminal according to a drive signal provided at said control input;</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 has a “switch” with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • See Figures 1 and 3. Exh. J, SMP240 datasheet, FCS1685819-20. • “PWR-SMP240, intended for 220/240 VAC or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a monolithic integrated circuit.” Exh. J, SMP240 datasheet, FCS1685819. <p>The SMP260 datasheet confirms that the SMP260 has a “switch” with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • See Figures 1 and 3. Exh. K, SMP260 datasheet, FCS1685806-07. • “PWR-SMP260, intended for 220/240 VAC or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a

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Claim 1	Admitted Prior Art
	monolithic integrated circuit." Exh. K, SMP260 datasheet, FCS1685806.
an oscillator that provides a maximum duty cycle signal comprising an on-state and an off-state;	REDACTED
a drive circuit that provides said drive signal according to said maximum duty cycle signal; and.	REDACTED

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Claim 1	Admitted Prior Art
	<p>The SMP240 datasheet confirms that the SMP240 includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "GATE DRIVER") Exh. J, SMP240 datasheet, FCS1685821. • "The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685820. <p>The SMP260 datasheet confirms that the SMP260 includes a drive circuit that provides a drive signal when the maximum duty cycle signal is in the first state and either a magnitude of the oscillation signal is below a threshold level or the regulation circuit is not disabled.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "GATE DRIVER") Exh. K, SMP260 datasheet, FCS1685807. • "The current-mode PWM controller section of the PWR-SMP260 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685806.
<p>a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum duty cycle.</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 includes a soft start circuit that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum duty cycle.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "5-BIT SOFT START DAC") Exh. J, SMP240 datasheet,

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Claim 1	Admitted Prior Art
	<p>FCS1685820.</p> <ul style="list-style-type: none"> • “The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685819; <i>see also</i> FCS1685822. <p>The SMP260 datasheet confirms that the SMP260 includes a soft start circuit that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum duty cycle.</p> <ul style="list-style-type: none"> • <i>See</i> Figure 3 (showing drive circuit “5-BIT SOFT START DAC”) Exh. K, SMP260 datasheet, FCS1685807. • “The current-mode PWM controller section of the PWR-SMP260 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685806; <i>see also</i> FCS1685808.

Claim 2	Admitted Prior Art
<p>The pulse width modulated switch of claim 1 wherein said a first terminal, said second terminal, said switch, said oscillator, said drive circuit and said soft start circuit comprise a monolithic device.</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 database confirms that the SMP240 is a monolithic device.</p> <ul style="list-style-type: none"> • <i>See</i> Figure 3 (monolithic first terminal (DRAIN), second terminal (COM), switch, oscillator, drive circuit (GATE DRIVER), and soft start circuit (5-BIT SOFT START DAC). Exh. J, SMP240 datasheet, FCS1685820. • “The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685819; <i>see also</i> FCS1685822. <p>The SMP260 database confirms that the SMP260 is a monolithic device.</p> <ul style="list-style-type: none"> • <i>See</i> Figure 3 (monolithic first terminal (DRAIN), second terminal (COM), switch, oscillator, drive circuit (GATE DRIVER), and soft start circuit (5-BIT SOFT START DAC). Exh. K, SMP260

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Claim 2	Admitted Prior Art
	<p>datasheet, FCS1685807.</p> <ul style="list-style-type: none"> • "The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. K, SMP260 datasheet, FCS1685806; <i>see also</i> FCS1685808.

Claim 8	Admitted Prior Art
<p>The pulse width modulated switch of claim 1 further comprising:</p> <p>a rectifier comprising a rectifier input and a rectifier output, said rectifier input receiving an AC mains signal and said rectifier output providing a rectifier signal;</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet shows a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and said rectifier output providing a rectifier signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. J, SMP240 datasheet, FCS1685819 and 824. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. J, SMP240 datasheet, FCS1685812. <p>The SMP260 datasheet shows a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and said rectifier output providing a rectifier signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. K, SMP260 datasheet, FCS1685806 and 811. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle

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Claim 8	Admitted Prior Art
<p>a power supply capacitor that receives said rectified signal;</p>	<p>hold-up time." Exh. K, SMP260 datasheet, FCS1685825.</p> <p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet shows a power supply capacitor (C1) that receives the rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. J, SMP240 datasheet, FCS1685819 and 824. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. J, SMP240 datasheet, FCS1685812. <p>The SMP260 datasheet shows a power supply capacitor (C1) that receives the rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. K, SMP260 datasheet, FCS1685806 and 811. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. K, SMP260 datasheet, FCS1685825.
<p>a first winding comprising a first terminal and a second terminal, said first winding receiving a substantially DC signal from said power supply capacitor, said second terminal of said first winding coupled to said first terminal of said pulse width modulated switch; and</p>	<p>As shown in Figures 1 and 6, the SMP240 datasheet shows a first winding (36T) comprising a first terminal (1) and a second terminal (2), the first winding receiving a substantially DC signal from the power supply capacitor, the second terminal of the first winding coupled to the first terminal (DRAIN) of the pulse width modulated switch. Exh. J, SMP240 datasheet, FCS1685819 and 824.</p> <p>As shown in Figures 1 and 6, the SMP260 datasheet shows a first winding (36T) comprising a first terminal (1) and a second terminal (2), the first winding receiving a substantially DC signal from the power supply capacitor, the second terminal of the first winding coupled to the first terminal (DRAIN) of the pulse width modulated switch. Exh. K, SMP260 datasheet, FCS1685806 and 811.</p>
<p>a second winding magnetically coupled to said first winding, said first winding capable of being coupled to a load.</p>	<p>As shown in Figures 1 and 6, the SMP240 datasheet shows a second winding (4T) magnetically coupled to the first winding (36T), the first winding capable of being coupled to a load. Exh. J, SMP240 datasheet, FCS1685819 and 824.</p> <p>As shown in Figures 1 and 6, the SMP260 datasheet shows a second winding (4T) magnetically coupled to the first winding (36T), the first winding capable of being coupled to a load. Exh. K, SMP260 datasheet, FCS1685806 and 811.</p>

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Claim 9	Admitted Prior Art
A regulation circuit comprising:	
a first terminal;	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 has a "first terminal" labeled "Drain".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. J, SMP240 datasheet, FCS1685819-20. • "Pin 18, 19: Open DRAIN of the output MOSFET." Exh. J, SMP240 datasheet, FCS1685821. <p>The SMP260 datasheet confirms that the SMP260 has a "first terminal" labeled "Drain".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. K, SMP240 datasheet, FCS1685806-07. • "Pin 18, 19: Open DRAIN of the output MOSFET." Exh. K, SMP260 datasheet, FCS1685808.
a second terminal;	<p>Q. Does the power transistor in the SMP240 and 260 have an input and an output terminal?</p> <p>Mr. Pollack: Object to the form.</p> <p>A: Yes.</p> <p style="text-align: right;">Exh. F, Lund Depo., 36:4-7</p> <p>The SMP240 datasheet confirms that the SMP240 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. J, SMP240 datasheet, FCS1685819-20. • "Pin 1: COM is common reference point for all low-power and reference circuitry." Exh. J, SMP240 datasheet, FCS1685808. <p>The SMP260 datasheet confirms that the SMP260 has a "second terminal" labeled "COM".</p> <ul style="list-style-type: none"> • See Figures 1, 2, and 3. Exh. K, SMP240 datasheet, FCS1685806-07. • "Pin 1: COM is common reference point for all low-power and reference circuitry." Exh. K, SMP260 datasheet, FCS1685821.

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Claim 9	Admitted Prior Art
<p>a switch comprising a control input, said switch allowing a signal to be transmitted between said first terminal and said second terminal according to a drive signal provided at said control input;</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 has a "switch" with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • See Figures 1 and 3. Exh. J, SMP240 datasheet, FCS1685819-20. • "PWR-SMP240, intended for 220/240 VAC or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a monolithic integrated circuit." Exh. J, SMP240 datasheet, FCS1685819. <p>The SMP260 datasheet confirms that the SMP260 has a "switch" with a control input that allows a signal to be transmitted between the first terminal and the second terminal according to a drive signal provided at the control input.</p> <ul style="list-style-type: none"> • See Figures 1 and 3. Exh. K, SMP260 datasheet, FCS1685806-07. • "PWR-SMP260, intended for 220/240 VAC or universal off-line isolated power supply applications, combines a high voltage power MOSFET switch with a switchmode power system controller in a

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Claim 9	Admitted Prior Art
	monolithic integrated circuit." Exh. K, SMP260 datasheet, FCS1685806.
<p>a drive circuit that provides said drive signal for a maximum time period of a cycle; and</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 includes a drive circuit that provides a drive signal for a maximum time period of a cycle.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "GATE DRIVER") Exh. J, SMP240 datasheet, FCS1685821. • "The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685820.

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Claim 9	Admitted Prior Art
	<p>The SMP260 datasheet confirms that the SMP260 includes a drive circuit that provides a drive signal for a maximum time period of a cycle.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "GATE DRIVER") Exh. K, SMP260 datasheet, FCS1685807. • "The current-mode PWM controller section of the PWR-SMP260 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685806.
<p>a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum time period.</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet confirms that the SMP240 includes a soft start circuit that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum time period.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "5-BIT SOFT START DAC") Exh. J, SMP240 datasheet, FCS1685820. • "The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685819; see also FCS1685822. <p>The SMP260 datasheet confirms that the SMP260 includes a soft start circuit that provides a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum time period.</p> <ul style="list-style-type: none"> • See Figure 3 (showing drive circuit "5-BIT SOFT START DAC") Exh. K, SMP260 datasheet, FCS1685807.

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Claim 9	Admitted Prior Art
	<ul style="list-style-type: none"> • "The current-mode PWM controller section of the PWR-SMP260 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685806; <i>see also</i> FCS1685808.

Claim 10	Admitted Prior Art
The regulation circuit of claim 9 further comprising an oscillator that provides a maximum duty cycle signal to said drive circuit, said maximum duty cycle signal comprising an on-state for said maximum time period.	REDACTED

Claim 16	Admitted Prior Art
The regulation circuit of claim 9 wherein said first terminal, said second terminal, said oscillator and said soft start circuit comprise a monolithic device.	<p>REDACTED</p> <p>The SMP240 database confirms that the SMP240 is a monolithic device.</p> <ul style="list-style-type: none"> • See Figure 3 (monolithic first terminal (DRAIN), second terminal (COM), switch, oscillator, drive circuit (GATE DRIVER), and soft start circuit (5-BIT SOFT START DAC). Exh. J, SMP240 datasheet, FCS1685820. • "The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. J, SMP240 datasheet, FCS1685819; <i>see also</i> FCS1685822.

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Claim 16	Admitted Prior Art
	<p>The SMP260 database confirms that the SMP260 is a monolithic device.</p> <ul style="list-style-type: none"> • See Figure 3 (monolithic first terminal (DRAIN), second terminal (COM), switch, oscillator, drive circuit (GATE DRIVER), and soft start circuit (5-BIT SOFT START DAC). Exh. K, SMP260 datasheet, FCS1685807. • "The current-mode PWM controller section of the PWR-SMP240 contains all of the blocks required to drive and control the power stage: off-line pre-regulator, oscillator, bandgap reference, summing junction, PWM comparator, gate driver, soft-start, and circuit protection. Exh. K, SMP260 datasheet, FCS1685806; <i>see also</i> FCS1685808.

Claim 18	Admitted Prior Art
<p>The regulation circuit of claim 9 further comprising:</p> <p>a rectifier comprising a rectifier input and a rectifier output, said rectifier input receiving an AC mains signal and said rectifier output providing a rectifier signal;</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet shows a rectifier (BR1) comprising a rectifier input and a rectifier output, the rectifier input receiving an AC mains signal and said rectifier output providing a rectifier signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. J, SMP240 datasheet, FCS1685819 and 824. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. J, SMP240 datasheet, FCS1685812. <p>The SMP260 datasheet shows a rectifier (BR1) comprising a rectifier input and a rectifier output, the</p>

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Claim 18	Admitted Prior Art
	<p>rectifier input receiving an AC mains signal and said rectifier output providing a rectifier signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. K, SMP260 datasheet, FCS1685806 and 811. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. K, SMP260 datasheet, FCS1685825.
<p>a power supply capacitor that receives said rectified signal;</p>	<p style="text-align: center;">REDACTED</p> <p>The SMP240 datasheet shows a power supply capacitor (C1) that receives the rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. J, SMP240 datasheet, FCS1685819 and 824. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. J, SMP240 datasheet, FCS1685812. <p>The SMP260 datasheet shows a power supply capacitor (C1) that receives the rectified signal.</p> <ul style="list-style-type: none"> • See Figures 1 and 6, Exh. K, SMP260 datasheet, FCS1685806 and 811. • "BR1 and C1 convert the AC input voltage to rectified DC voltage and provide the cycle-to-cycle hold-up time." Exh. K, SMP260 datasheet, FCS1685825.
<p>a first winding comprising a first terminal and a second terminal, said first winding receiving a substantially DC signal from said power supply capacitor, said second terminal of said first winding coupled to said first terminal of said regulation circuit; and</p>	<p>As shown in Figures 1 and 6, the SMP240 datasheet shows a first winding (36T) comprising a first terminal (1) and a second terminal (2), the first winding receiving a substantially DC signal from the power supply capacitor, the second terminal of the first winding coupled to the first terminal (DRAIN) of the pulse width modulated switch. Exh. J, SMP240 datasheet, FCS1685819 and 824.</p> <p>As shown in Figures 1 and 6, the SMP260 datasheet shows a first winding (36T) comprising a first terminal (1) and a second terminal (2), the first winding receiving a substantially DC signal from the power supply capacitor, the second terminal of the first winding coupled to the first terminal (DRAIN) of the pulse width modulated switch. Exh. K, SMP260 datasheet, FCS1685806 and 811.</p>
<p>a second winding magnetically coupled to said first winding, said first winding capable of being coupled to a load.</p>	<p>As shown in Figures 1 and 6, the SMP240 datasheet shows a second winding (4T) magnetically coupled to the first winding (36T), the first winding capable of being coupled to a load. Exh. J, SMP240 datasheet, FCS1685819 and 824.</p>

Appendix III – '366 Patent

Claim 18	Admitted Prior Art
	As shown in Figures 1 and 6, the SMP260 datasheet shows a second winding (4T) magnetically coupled to the first winding (36T), the first winding capable of being coupled to a load. Exh. K, SMP260 datasheet, FCS1685806 and 811.